ANALYTICAL ABSTRACTS

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A MONTHLY JOURNAL DEALING
WITH ALL BRANCHES OF
ANALYTICAL CHEMISTRY

VOL. 21

1971

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ERRATA

Some errata subsequently published in the journals abstracted are included in the following list. When t initials of given names in the Author Index and in the abstracts do not agree, the Index should be assum to be correct.

VOL. 14, 1967

Index, p. xvi, column 2, line 4, *for* 8608 *read* 8068

VOL. 15, 1968

Abstract No.	*Line*	
3163	15, 16, 17	*for* 2-(3-methyl-5-oxo-1-phenylpyrazolin-4-ylazo)-4-nitrobenzoic acid *read* 2-methyl-5-oxo-1-phenylpyrazolin-4-ylazo)-5-nitrobenzoic acid

The appropriate modification should be made to the Subject Index for Vol. 15, 19

VOL. 18, 1970

Index, p. 64, column 2, line 62, *insert* VIII, *after* spectrophotometry,

Abstract No.	*Line*	
3784	2	*for* A. G. Dvostran *read* A. G. Dvortsan

VOL. 19, 1970

Index, p. 36, column 2, line 62, *for* **Peeney, J.**, *read* **Feeney, J.**,
Index, p. 38, *insert* **Feeney, J.** See **Emsley, J. W.**, *Book*: Aug. *after entry for* **Feeley, D. T.**
Index, p. 48, column 1, line 51, *after* **Yotsuyanagi, T.** *insert*, 1816, 3034.
Index, p. 102, column 2, line 48, *delete complete line*
Index, p. 114, column 2, line 14, this line should read *cis*- and *trans*-isomeric spirocyclopropanes, 2021

Abstract No.	*Line*	
3721	3, 4	*for* Hanna Malaszewska *read* Hanna Maleszewska
4374	3	*for* Tadayuki Komura *read* Tadayuki Omura

Appropriate modifications should be made to the Author Index for Vol. 19, 1970.

VOL. 20, 1971

Index, p. 3, column 2, line 5, *this line should read* **Acosta, R. S.** See **Suarez Acosta, R.**
Index, p. 28, column 1, line 33, *for* **Franz de Fernandez,** *read* **Franze de Fernandez,**
Index, p. 29, column 1, line 42, *this line should read* **De Zeeuw, R. A.** See **Zeeuw, R. A. de.**
Index, p. 30, column 1, line 74, *this line should read* **Doss, H.** See **Khalifa, K.**, 1165.
Index, p. 54, column 1, line 18, *this line should read*
— See also **Windsor, A. A.**, 692.
Index, p. 71, column 2, line 74, *for* **Bonchev, Ts.**, 2391. *read* **Manushev, B.**
Index, p. 87, column 1, line 60, *for* **Peel, J.** *read* **Perel, J.**
Index, p. 140, column 2, lines 38 and 39, *replace these lines by*
Beer, analysis by GLC, review, 603
of head-space vapours, by automated GLC, 602
Index, p. 190, column 2, line 67, *for* CL⁻ *read* Cl⁻
Index, p. 219, column 2, line 6, *this line should read*
by photom. titration, 1696
Index, p. 240, column 1, line 15, *this line should read*
applications of in org. analysis, review, 2232
Index, p. 251, column 1, line 2, *for* $S_7O_6^{2-}$ *read* $S_8O_6^{2-}$

Abstract No.	*Line*	
2664	3	*insert* **VI.** *after* **atoms.**
3597	2, 3	*for* A. Guiaraum *read* A. Guiraum

Appropriate modifications should be made to the Author Index for Vol. 20, 197

VOL. 21, 1971

Abstract No.	*Line*	
2	64	*for* 1971, **6** (3). *read* 1971, **6** (2).
361	18	*for* Cu *read* Ca
362	4	*for* 332–326 *read* 323–326
474	2	*this line should read* Maryanne L. Mather and Sebastian G. Ciancio (Dept.
475	4	*for* P. T. van Heeswjik, *read* P. T. van Heeswijk,

Abstract No.	*Line*	
494	12	*for* crytocavine *read* cryptocavine
546	16	*for* measured, change *read* measured; change
558		*the abstract after this abstract should be numbered* 559, *not* 550
563	16	*insert*) *after* indicator
627	7	*for* ACD16M *read* ACD15M
661	7, 8	*for* Desmodur H *read* Desmodur T
702	2	*for* **71** (7) *read* **21** (7)
720	3	*for* Luebingen, *read* Tuebingen,
1139	4	*for* K. B. Yatsimirksii *read* K. B. Yatsimirskii
1193	1	*insert* **Separation of organic bases by Craig distribution. IX.** *before* **Quantitative**
1193	2, 3	*delete* **IX. Separation of organic bases by Craig distribution.**
1202	4	*for* M. B. Wepster *read* B. M. Wepster
1466	3	*for* R. Preussman *read* R. Preussmann
1587	2	*insert* [**I.**] *after* **graphy.**
1595	22	*for* 1958, *read* 1968,
1714	4, 5	*for* H. N. Barrandon *read* J. N. Barrandon
1838	3	*for* Suresh C. Shrivastawa, *read* Suresh C. Shrivastava,
2001	1	*for* **Deleterions** *read* **Deleterious**
2364	4	*for* 368–388 *read* 386–388
2373	8	*for* phenyliminodiacetic *read* benzyliminodiacetic
2373	9	*for* benzylenedimethylenebis(iminodiacetic acid) *read* phenylenedimethylenebis-(iminodiacetic acid)
2557	4	*for* Umed, *read* Umea,
2616	3	*for* L. Gacs *read* I. Gacs
2641	21	*for* (±)-cyclohexan-3-one *read* (±)-3-methylcyclohexanone
3218	19	*for* from 2% a soln. *read* from a 2% soln.
3356	1	*insert* **quinquevalent vanadium or of gallium with 6-(2-** *after* **of**
3356	4	*delete complete line*
3450	3	*for* H. Agterdenbos *read* J. Agterdenbos
3575	2	*for* B. G. Bleijenberg *read* B. G. Blijenberg
3840	21	*for* derivations *read* deviations
3951	3	*for* A. J. Bernard, jun. *read* A. J. Barnard, jun.
4064	7	for *N*-arylhydrocamic read *N*-arylhydroxamic
4151	6	*for* 1972, *read* 1971,
4314	16	*delete* for
4363	12	*insert*) *after* −1·20 V
4570	18	*for* concn. of particle size *read* concn. on particle size
4587	3	*for* **for** *read* **of**

JOURNALS

The following list contains the names of journals (and their abbreviations) from which papers hav been abstracted regularly during 1971. Journals that have been omitted are those that contain only a occasional analytical paper, and a number of Russian journals from which translated abstracts have bee published through the medium of *Referativnyi Zhurnal*.

The abbreviations, in italics, after the full names of the journals refer to the languages in which th journals are published.

Acta chem. fenn.	Acta Chemica Fennica [*Eng.*]
Acta chem. scand.	Acta Chemica Scandinavica [*Eng.*]
Acta chim. hung.	Acta Chimica Academiae Scientiarum Hungaricae [*Eng., Ge*
Acta pharm. hung.	Acta Pharmaceutica Hungarica [*Hung.*]
Acta pharm. jugosl.	Acta Pharmaceutica Jugoslavica [*Serbo-Croat*]
Acta pharm. suec.	Acta Pharmaceutica Suecica [*Eng.*]
Acta Pol. pharm.	Acta Poloniae Pharmaceutica [*Pol.*]
Afinidad	Afinidad [*Span.*]
Agric. biol. Chem.	Agricultural and Biological Chemistry [Tokyo] [*Eng.*]
AMDEL Bull.	Bulletin of the Australian Mineral Development Laboratori [*Eng.*]
Am. ind. Hyg. Ass. J.	American Industrial Hygiene Association Journal [*Eng.*]
Analyst, Lond.	Analyst [*Eng.*]
Analyt. Biochem.	Analytical Biochemistry [*Eng.*]
Analyt. Chem.	Analytical Chemistry [*Eng.*]
Analytica chim. Acta	Analytica Chimica Acta [*Eng., Fr., Ger.*]
Analyt. Lett.	Analytical Letters [*Eng., Fr., Ger.*]
An. Asoc. quim. argent.	Anales de la Asociacion Quimica Argentina [*Span.*]
An. Bromat.	Anales de Bromatologia [*Span.*]
Angew. Chem., int. Edn	Angewandte Chemie, International Edition [*Eng.*]
Annali Chim.	Annali di Chimica [*Ital.*]
Annali Ist. sup. Sanita	Annali dell'Istituto Superiore di Sanita [*Eng., Fr., Ital.*]
Annls Chim.	Annales de Chimie [*Fr.*]
Annls pharm. fr.	Annales Pharmaceutiques Francaises [*Fr.*]
An. Quim.	Anales de Quimica de la Real Sociedad Espanola de Fisica Quimica [*Span.*]
Antibiotiki	Antibiotiki [*Russ.*]
Appl. Optics	Applied Optics [*Eng.*]
Appl. Spectrosc.	Applied Spectroscopy [*Eng.*]
Arch. EisenhuettWes.	Archiv fuer das Eisenhuettenwesen [*Ger.*]
Arch. Pharm., Berl.	Archiv der Pharmazie (und Berichte der Deutschen pharm zeutischen Gesellschaft) [*Ger.*]
Ark. Kemi	Arkiv foer Kemi [*Eng.*]
Armyan. khim. Zh.	Armyanskii Khimicheskii Zhurnal [*Russ.*]
Arzneimittel-Forsch.	Arzneimittel-Forschung [*Ger.*]
Atom. Absorp. Newsl.	Atomic Absorption Newsletter [*Eng.*]
Atomn. Energ.	Atomnaya Energiya [*Russ.*]
Aust. J. Chem.	Australian Journal of Chemistry [*Eng.*]
Azerb. khim. Zh.	Azerbaidzhanskii Khimicheskii Zhurnal [*Russ.*]
Beitr. Tabakforsch.	Beitraege zur Tabakforschung [*Eng., Ger.*]
Biochem. biophys. Res. Commun.	Biochemical and Biophysical Research Communications [*Eng*
Biochem. J.	Biochemical Journal [*Eng.*]
Biochim. biophys. Acta	Biochimica et Biophysica Acta [*Eng.*]
Biochimie	Biochimie (*formerly* Bulletin de la Societe de Chimie Biolo ique) [*Fr.*]
Biokhimiya	Biokhimiya [*Russ.*]
B.I.S.R.A. Open Rep.	B.I.S.R.A. Open Report [*Eng.*]
Boll. Soc. ital. Biol. sper.	Bollettino della Societa Italiana di Biologia Sperimentale [*Ita*
Brauwissenschaft	Brauwissenschaft [*Ger.*]
Br. med. J.	British Medical Journal [*Eng.*]
Bull. chem. Soc. Japan	Bulletin of the Chemical Society of Japan [*Eng.*]
Bull. environ. Contam. Toxic.	Bulletin of Environmental Contamination and Toxicolo [*Eng.*]
Bull. Narcot.	Bulletin on Narcotics [*Eng.*]
Bull. Soc. chim. Fr.	Bulletin de la Societe Chimique de France [*Fr.*]
Can. J. Biochem.	Canadian Journal of Biochemistry [*Eng.*]
Can. J. Chem.	Canadian Journal of Chemistry [*Eng., Fr.*]
Can. J. pharm. Sci.	Canadian Journal of Pharmaceutical Science [*Eng.*]
Can. Spectrosc.	Canadian Spectroscopy [*Eng., Fr.*]
Carbohyd. Res.	Carbohydrate Research [*Eng., Ger.*]
Cereal Chem.	Cereal Chemistry [*Eng.*]
Cereal Sci. Today	Cereal Science Today [*Eng.*]
Chemia analit.	Chemia Analityczna [*Eng., Fr., Ger., Pol.*]
Chemicke Listy	Chemicke Listy [*Czech*]

emicke Zvesti	Chemicke Zvesti [*Eng., Fr., Ger., Russ.*]
emicky Prum.	Chemicky Prumysl [*Czech*]
emie-Ingr-Tech.	Chemie-Ingenieur-Technik [*Ger.*]
emikerzeitung—chem. Appar.	Chemiker-Zeitung—Chemische Apparatur [*Ger.*]
emistry, Taipei	Chemistry, Taipei [*Chin.*]
em. pharm. Bull., Tokyo	Chemical & Pharmaceutical Bulletin [*Eng., Ger.*]
em. Tech., Berl.	Chemische Technik [*Ger.*]
emy Br.	Chemistry in Britain [*Eng.*]
emy Ind.	Chemistry and Industry [*Eng.*]
im. analyt.	Chimie Analytique [*Fr.*]
imia	Chimia [*Eng., Fr., Ger.*]
imica Ind., Milano	Chimica e l'Industria [*Ital.*]
romatographia	Chromatographia [*Eng., Fr., Ger.*]
romat. Rev.	Chromatographic Reviews [*Eng.*]
n. Chem.	Clinical Chemistry [*Eng.*]
nica chim. Acta	Clinica Chimica Acta [*Eng., Fr., Ger.*]
ln Czech. chem. Commun.	Collection of Czechoslovak Chemical Communications [*Eng., Ger.*]
umn	Column: Pye Unicam Chromatography Bulletin [*Eng.*]
r. Acad. bulg. Sci.	Comptes Rendus de l'Academie Bulgare des Sciences [*Eng., Fr., Ger.*]
r. hebd. Seanc. Acad. Sci., Paris	Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences [*Fr.*]
at. chem. Acta	Croatica Chemica Acta [*Eng., Ger.*]
ka Farm.	Ceskoslovenska Farmacie [*Czech, Slovak*]
rr. Sci.	Current Science [*Eng.*]
ssnes pharm. pharmac.	Dissertationes Pharmaceuticae et Pharmacologicae [*Eng.*]
kl. Akad. Nauk SSSR	Doklady Akademii Nauk SSSR [*Russ.*]
kl. Akad. Nauk tadzhik. SSR	Doklady Akademii Nauk Tadzhikskoi SSR [*Russ.*]
kl. Akad. Nauk uzbek. SSR	Doklady Akademii Nauk Uzbekskoi SSR [*Russ.*]
ApothZtg	Deutsche Apotheker-Zeitung [*Ger.*]
LebensmittRdsch.	Deutsche Lebensmittel-Rundschau [*Ger.*]
zacilik Bult.	Eczacilik Bulteni [*Turk.*]
viron. Sci. Technol.	Environmental Science & Technology [*Eng.*]
zymologia	Enzymologia [*Eng.*]
doel Kohle Erdgas Petrochem. Brennst.-Chem.	Erdoel und Kohle, Erdgas, Petrochemie vereinigt mit Brennstoff-Chemie [*Ger.*]
perientia	Experientia [*Eng., Ger.*]
rbe Lack	Farbe und Lack [*Ger.*]
rmaceuticky Obz.	Farmaceuticky Obzor [*Czech, Slovak*]
rmacja pol.	Farmacja Polska [*Pol.*]
rmaco, Ed. prat.	Farmaco, Edizione Pratica [*Fr., Ital.*]
rmaco, Ed. scient.	Farmaco, Edizione Scientifica [*Eng., Ital.*]
rmatsiya, Sof.	Farmatsiya [*Bulg.*]
serforsch. TextTech.	Faserforschung und Textiltechnik [*Ger.*]
te Seifen AnstrMittel	Fette, Seifen, Anstrichmittel [*Ger.*]
vour Ind.	Flavour Industry (*formerly* Perfumery and Essential Oil Record) [*Eng.*]
el, Lond.	Fuel [*Eng.*]
chim. cosmochim. Acta	Geochimica et Cosmochimica Acta [*Eng.*]
reide Mehl	Getreide und Mehl [*Ger.*]
drokhim. Mater.	Gidrokhimicheskie Materialy [*Russ.*]
. Sanit.	Gigiena i Sanitariya [*Russ.*]
-T Fachz. Lab.	Glas-Instrumenten-Technik. Fachzeitschrift fuer das Laboratorium [*Eng., Ger.*]
asas Aceit.	Grasas y Aceites [*Span.*]
lv. chim. Acta	Helvetica Chimica Acta [*Fr., Ger.*]
rba pol.	Herba Polonica [*Pol.*]
h Phys.	Health Physics [*Eng.*]
ppe-Seyler's Z. physiol. Chem.	Hoppe-Seyler's Zeitschrift fuer physiologische Chemie [*Ger.*]
tn. Listy	Hutnicke Listy [*Czech*]
dian J. appl. Chem.	Indian Journal of Applied Chemistry [*Eng.*]
dian J. Biochem.	Indian Journal of Biochemistry [*Eng.*]
dian J. Chem.	Indian Journal of Chemistry [*Eng.*]
dian J. Dairy Sci.	Indian Journal of Dairy Science [*Eng.*]
dian J. Pharm.	Indian Journal of Pharmacy [*Eng.*]
dian J. Technol.	Indian Journal of Technology [*Eng.*]
dustrie agr.	Industrie Agrarie [*Ital.*]
icion Quim. analit. pura apl. Ind.	Informacion de Quimica Analitica, Pura y Aplicada a la Industria [*Span.*]

Int. J. appl. Radiat. Isotopes	International Journal of Applied Radiation and Isotop [*Eng., Ger.*]
Int. Sug. J.	International Sugar Journal [*Eng.*]
Isotopenpraxis	Isotopenpraxis [*Ger.*]
Israel J. Chem.	Israel Journal of Chemistry [*Eng.*]
Ital. J. Biochem.	Italian Journal of Biochemistry [*Eng.*]
Izv. Akad. Nauk beloruss. SSR, Ser. khim. Nauk	Izvestiya Akademii Nauk Belorusskoi SSR, Seriya Khim cheskikh Nauk [*Russ.*]
Izv. Akad. Nauk kazakh. SSR, Ser. khim.	Izvestiya Akademii Nauk Kazakhskoi SSR, Seriya Khim cheskaya [*Russ.*]
Izv. Akad. Nauk latv. SSR, Ser. khim.	Izvestiya Akademii Nauk Latviiskoi SSR, Seriya Khim cheskaya [*Russ.*]
Izv. Akad. Nauk SSSR, Ser. khim.	Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya [*Russ*
Izv. sib. Otdel. Akad. Nauk SSSR	Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR [*Russ*
Izv. tomsk. politekh. Inst.	Izvestiya Tomskogo Politekhnicheskogo Instituta ime S. M. Kirova [*Russ.*]
Izv. vyssh. ucheb. Zaved., Khim. khim. Tekhnol.	Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khim cheskaya Tekhnologiya [*Russ.*]
J. agric. Fd Chem.	Journal of Agricultural and Food Chemistry [*Eng.*]
J. Air Pollut. Control Ass.	Journal of the Air Pollution Control Association [*Eng.*]
J. Am. Oil Chem. Soc.	Journal of the American Oil Chemists' Society [*Eng.*]
J. Am. Wat. Wks Ass.	Journal of the American Water Works Association [*Eng.*]
Japan Analyst	Japan Analyst [*Jap.*]
J. appl. Chem. Biotechnol.	Journal of Applied Chemistry and Biotechnology [*Eng.*]
J. Ass. off. analyt. Chem.	Journal of the Association of Official Analytical Chemis [*Eng.*]
J. Ass. publ. Analysts	Journal of the Association of Public Analysts [*Eng.*]
J. chem. Soc. (A, B, C)	Journal of the Chemical Society (Sections A, B, C) [*Eng.*]
J. chem. Soc. Japan, pure Chem. Sect.	Journal of the Chemical Society of Japan, Pure Chemist Section [*Jap.*]
J. Chem. un. Arab Repub.	Journal of Chemistry of the United Arab Republic [*Eng.*]
J. Chin. chem. Soc., Taipei	Journal of the Chinese Chemical Society [*Eng.*]
J. Chromat.	Journal of Chromatography [*Eng., Fr., Ger.*]
J. chromat. Sci.	Journal of Chromatographic Science [*Eng.*]
J. clin. Path.	Journal of Clinical Pathology [*Eng.*]
J. Dairy Res.	Journal of Dairy Research [*Eng.*]
J. Dairy Sci.	Journal of Dairy Science [*Eng.*]
J. electroanalyt. Chem.	Journal of Electroanalytical Chemistry and Interfacial Electr chemistry [*Eng.*]
J. electrochem. Soc.	Journal of the Electrochemical Society [New York] [*Eng.*]
Jena Rev.	Jena Review [*Eng.*]
J. Fd Sci.	Journal of Food Science [*Eng.*]
J. forens. Sci.	Journal of Forensic Sciences, U.S.A. [*Eng.*]
J. forens. Sci. Soc.	Journal of the Forensic Science Society, U.K. [*Eng.*]
J. Indian chem. Soc.	Journal of the Indian Chemical Society [*Eng.*]
J. inorg. nucl. Chem.	Journal of Inorganic & Nuclear Chemistry [*Eng.*]
J. Inst. Brew.	Journal of the Institute of Brewing [*Eng.*]
J. Inst. Fuel	Journal of the Institute of Fuel [*Eng.*]
J. Inst. Metals	Journal of the Institute of Metals [*Eng.*]
J. Instn Chem., India	Journal of the Institution of Chemists (India) [*Eng.*]
J. Inst. Petrol.	Journal of the Institute of Petroleum [*Eng.*]
J. Iron Steel Inst.	Journal of the Iron and Steel Institute [*Eng.*]
J. Lab. clin. Med.	Journal of Laboratory and Clinical Medicine [*Eng.*]
J. labell. Compounds	Journal of Labelled Compounds [*Eng., Fr., Ger.*]
J. less-common Metals	Journal of the Less-Common Metals [*Eng.*]
J. Lipid Res.	Journal of Lipid Research [*Eng.*]
J. Paint Technol.	Journal of Paint Technology [*Eng.*]
J. Pharm. Belg.	Journal de Pharmacie de Belgique [*Fr.*]
J. Pharm. Pharmac.	Journal of Pharmacy and Pharmacology [*Eng.*]
J. pharm. Sci.	Journal of Pharmaceutical Sciences [*Eng.*]
J. Phys. D, appl. Phys.	Journal of Physics D, Applied Physics [*Eng.*]
J. Phys. E, scient. Instrum.	Journal of Physics E, Scientific Instruments [*Eng.*]
J. prakt. Chem.	Journal fuer praktische Chemie [*Eng., Ger.*]
J. radioanalyt. Chem.	Journal of Radioanalytical Chemistry [*Eng., Fr., Ger.*]
J. Res. natn. Bur. Stand.	Journal of Research of the National Bureau of Standar [*Eng.*]
J. Sci. Fd Agric.	Journal of the Science of Food and Agriculture [*Eng.*]
J. Soc. Leath. Trades Chem.	Journal of the Society of Leather Trades' Chemists [*Eng.*]
J. Wat. Pollut. Control Fed.	Journal of the Water Pollution Control Federation [*Eng.*]
Kemija Ind.	Kemija u Industriji [*Serbo-Croat*]
Klin. Wschr.	Klinische Wochenschrift [*Ger.*]
Lab. Pract.	Laboratory Practice [*Eng.*]
Lait	Lait [*Fr.*]

ancet	Lancet [*Eng.*]
atv. PSR Zinat. Akad. Vest., Kim. Ser.	Latvijas PSR Zinatnu Akademija Vestis, Kimija Serija [*Russ.*]
see under	*see under*
Izv. Akad. Nauk latv. SSR, Ser. khim.	Izvestiya Akademii Nauk Latviiskoi SSR, Seriya Khimicheskaya [*Russ.*]
imnol. Oceanogr.	Limnology and Oceanography [*Eng.*]
ipids	Lipids [*Eng.*]
Iagy. kem. Foly.	Magyar Kemiai Folyoirat [*Hung.*]
Iagy. Kem. Lap.	Magyar Kemikusok Lapja [*Hung.*]
Ieddr norsk farm. Selsk.	Meddelelser fra Norsk Farmaceutisk Selskap [*Eng., Ger.*]
Ied. Lab. Technol.	Medical Laboratory Technology [*Eng.*]
Ietal Finish.	Metal Finishing [*Eng.*]
Ietalloberflaeche	Metalloberflaeche [*Ger.*]
Ietallurgia	Metallurgia, Manchester, U.K. [*Eng.*]
Ietallurgia ital.	Metallurgia Italiana [*Ital.*]
Ieth. phys. Analyse	Methodes Physiques d'Analyse [*Fr.*]
Iicrochem. J.	Microchemical Journal [*Eng.*]
Iikrochim. Acta	Mikrochimica Acta [*Eng., Fr., Ger.*]
Iitt. Geb. Lebensmitteluntersuch. u. Hyg. ..	Mitteilungen aus dem Gebiete der Lebensmitteluntersuchung und Hygiene [*Ger.*]
Iitt. Rebe Wein, Obstb. Fruechteverwert.	Mitteilungen (Klosterneuberg). Rebe und Wein, Obstbau und Fruechteverwertung [*Ger.*]
Ionatsschr. Brau.	Monatsschrift fuer Brauerei [*Ger.*]
Nahrung	Nahrung [*Ger.*]
Nature, Lond.	Nature [*Eng.*]
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Neftekhimiya	Neftekhimiya [*Russ.*]
Neue Huette	Neue Huette [*Ger.*]
N.Z. Jl Sci.	New Zealand Journal of Science [*Eng.*]
Optics Spectrosc., N.Y. [*Optika Spektrosk.*]	Optics and Spectroscopy [*English translation of* Optika i Spektroskopiya]
Path. Biol., Paris	Pathologie et Biologie [*Fr.*]
Periodica polytech. chem. Engng	Periodica Polytechnica, Chemical Engineering [*Eng., Ger.*]
Perkin-Elmer Instrum. News	Perkin-Elmer Instrument News [*Eng.*]
Pestic. Sci.	Pesticide Science [*Eng.*]
Pharm. Acta Helv.	Pharmaceutica Acta Helvetiae [*Eng., Fr., Ger.*]
Pharmazie	Pharmazie [*Ger.*]
Pharm. J.	Pharmaceutical Journal [*Eng.*]
Pharm. Weekbl. Ned.	Pharmaceutisch Weekblad voor Nederland [*Dutch, Eng., Ger.*]
Plaste Kautsch.	Plaste und Kautschuk [*Ger.*]
Plast. Massy	Plasticheskie Massy [*Russ.*]
Powder Technol.	Powder Technology [*Eng.*]
Proc. Am. Soc. Brew. Chem.	Proceedings. American Society of Brewing Chemists [*Eng.*]
Proc. Soc. analyt. Chem.	Proceedings of the Society for Analytical Chemistry [*Eng.*]
Prof. Pap. U.S. geol. Surv.	Professional Papers. United States Geological Survey [*Eng.*]
Prum. Potravin	Prumysl Potravin [*Czech, Slovak*]
Pure appl. Chem.	Pure and Applied Chemistry [*Eng., Fr., Ger.*]
Pyrethrum Post	Pyrethrum Post [*Eng., Fr.*]
Radiochem. radioanalyt. Lett.	Radiochemical and Radioanalytical Letters [*Eng.*]
Radiochim. Acta	Radiochimica Acta [*Eng., Fr., Ger.*]
Radiokhimiya	Radiokhimiya [*Russ.*]
Rapp. CEA	Rapport. Commissariat a l'Energie Atomique [*Fr.*]
Recl Trav. chim. Pays-Bas	Recueil des Travaux Chimiques des Pays-Bas [*Eng.*]
Rep. atom. Energy Commn U.S.	Report. Atomic Energy Commission, United States [*Eng.*]
Rep. Invest. U.S. Bur. Mines	Report of Investigations. United States Bureau of Mines [*Eng.*]
Rep. U.K. atom. Energy Auth.	Report. United Kingdom Atomic Energy Authority [*Eng.*]
Rep. Warren Spring Lab.	Report of the Warren Spring Laboratory, Stevenage [*Eng.*]
Resonance Lines	Resonance Lines [*Eng.*]
Rev. Coal Tar Technol.	Review of Coal Tar Technology [*Eng.*]
Rev. scient. Instrum.	Review of Scientific Instruments [*Eng.*]
Revta Agroquim. Tecnol. Aliment. ..	Revista de Agroquimica y Tecnologia de Alimentos [*Span.*]
Revta Asoc. bioquim. argent.	Revista de la Asociacion Bioquimica Argentina [*Span.*]
Revta Chim.	Revista de Chimie [*Rom.*]
Revta Fac. Farm. Bioquim. Univ. S Paulo	Revista da Faculdade de Farmacia e Bioquimica da Universidade de Sao Paulo [*Port.*]
Revta Metal.	Revista de Metalurgia [*Span.*]
Revta port. Quim.	Revista Portuguesa de Quimica [*Port., Span.*]
Revta Soc. quim. Mex.	Revista de la Sociedad Quimica de Mexico [*Span.*]

Revta Univ. ind. Santander	Revista de la Universidad Industrial de Santander [*Span.*]
Revue roum. Chim.	Revue Roumaine de Chimie [*Eng., Fr., Ger.*]
Ricerca scient.	Ricerca Scientifica [*Ital.*]
Riv. ital. Sostanze grasse	Rivista Italiana delle Sostanze Grasse [*Ital.*]
Roczn. Chem.	Roczniki Chemii [*Eng., Fr., Ger., Pol.*]
Roczn. panst. Zakl. Hig.	Roczniki Panstwowego Zakladu Higieny [*Pol.*]
Ropa Uhlie	Ropa a Uhlie [*Czech, Slovak*]
Scand. J. clin. Lab. Invest.	Scandinavian Journal of Clinical & Laboratory Investigat [*Eng.*]
Scientia pharm.	Scientia Pharmaceutica [*Ger.*]
Sci. Tools	Science Tools [*Eng.*]
Sepn Sci.	Separation Science [*Eng.*]
Soil Sci.	Soil Science [*Eng.*]
Spec. Publs natn. Bur. Stand.	Special Publications. National Bureau of Standards [*Eng.*
Spectrochim. Acta	Spectrochimica Acta [*Eng., Fr., Ger.*]
Spectrosc. Lett.	Spectroscopy Letters [*Eng.*]
Spectrovision	Spectrovision [*Eng.*]
Staub, Reinhalt. Luft	Staub, Reinhaltung der Luft [*Ger.*]
Steroids	Steroids [*Eng.*]
Studia Univ. Babes-Bolyai, Ser. Chem.	Studia Universitatis Babes-Bolyai, Series Chemia [*Rom.*]
Studii Cerc. Chim.	Studii si Cercetari de Chimie [*Rom.*]
Svensk PappTidn.	Svensk Papperstidning [*Eng., Ger.*]
Talanta	Talanta [*Eng., Fr., Ger.*]
TAPPI	TAPPI [Journal of the Technical Association of the Pu and Paper Industry] [*Eng.*]
Technology, Sindri	Technology [*Eng.*]
Tenside	Tenside [*Ger.*]
Trans. Instn Min. Metall.	Transactions of the Institution of Mining and Metallurgy [*En*
Trav. Soc. Pharm. Montpellier	Travaux de la Societe de Pharmacie de Montpellier [*Fr.*]
Trib. CEBEDEAU	Tribune de CEBEDEAU [Centre Belge d'Etude et de Doc mentation des Eaux] [*Fr.*]
Trudy Khim. khim. Tekhnol. [Gor'kii]	Trudy po Khimii i Khimicheskoi Tekhnologii [*Russ.*]
Trudy mosk. khim.-tekhnol. Inst.	Trudy Moskovskogo Khimiko-Tekhnologicheskogo Institu imeni D. I. Mendeleeva [*Russ.*]
Trudy vses. nauchno-issled. Inst. khim. Reakt.	Trudy Vsesoyuznogo Nauchno-issledovatel'skogo Institu Khimicheskikh Reaktivov [*Russ.*]
Uchen. Zap. azerb. gos. Univ., Ser. khim. Nauk	Uchenye Zapiski Azerbaidzhanskogo Gosudarstvennogo Uni versiteta, Seriya Khimicheskikh Nauk [*Russ.*]
Uchen. Zap. perm. gos. Univ.	Uchenye Zapiski Permskogo Gosudarstvennogo Universite imeni M. Gor'kogo [*Russ.*]
Ukr. khim. Zh.	Ukrainskii Khimicheskii Zhurnal [*Russ.*]
Uzbek. khim. Zh.	Uzbekskii Khimicheskii Zhurnal [*Russ.*]
Vest. leningr. gos. Univ., Fiz., Khim.	Vestnik Leningradskogo Gosudarstvennogo Universitet Fizika, Khimiya [*Russ.*]
Vest. mosk. gos. Univ., Ser. Khim.	Vestnik Moskovskogo Gosudarstvennogo Universiteta, Seri Khimiya [*Russ.*]
Wat. Res.	Water Research [*Eng.*]
Wat. Sewage Wks	Water & Sewage Works [*Eng.*]
Z. analyt. Chem.	Zeitschrift fuer analytische Chemie [*Eng., Ger.*]
Z. anorg. allg. Chem.	Zeitschrift fuer anorganische und allgemeine Chemie [*Ger.*]
Zav. Lab.	Zavodskaya Laboratoriya [*Russ.*]
Z. Chemie, Lpz.	Zeitschrift fuer Chemie [*Ger.*]
Zentbl. Pharm., Pharmakother. u. Lab.-diagnostik	Zentralblatt fuer Pharmazie, Pharmakotherapie und Labor toriums-diagnostik [*Ger.*]
Z. Erzbergb. MetallhuettWes.	Zeitschrift fuer Erzbergbau und Metallhuettenwesen [*Ger.*]
Zh. analit. Khim.	Zhurnal Analiticheskoi Khimii [*Russ.*]
Zh. obshch. Khim.	Zhurnal Obshchei Khimii [*Russ.*]
Zh. prikl. Khim., Leningr.	Zhurnal Prikladnoi Khimii [*Russ.*]
Zh. prikl. Spektrosk.	Zhurnal Prikladnoi Spektroskopii [*Russ.*]
Z. klin. Chem. klin. Biochem.	Zeitschrift fuer klinische Chemie und klinische Biochem [*Eng., Ger.*]
Z. Lebensmittelunters. u. -Forsch.	Zeitschrift fuer Lebensmittel-Untersuchung und -Forschu [*Ger.*]
Z. med. Labortech.	Zeitschrift fuer Medizinische Labortechnik [*Ger.*]

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ABBREVIATIONS

Certain abbreviations in everyday use are not included in the following list. When any doubt might arise from the use of an abbreviation or symbol the word is printed in full.

alternating current	a.c.
ampere	amp.
Ångström unit	Å
aqueous	aq.
centimetre	cm
Colour Index (2nd Edition)	C.I.
concentrated	conc.
concentration	concn.
Curie	Ci
current density	c.d.
density, relative	d or wt. per ml
deoxyribonucleic acid	DNA
dihydronicotinamide-adenine dinucleotide	$NADH_2$ (not DPNH)
dilute (as adjective)	dil.
direct current	d.c.
electron volt	eV
ethylenediaminetetra-acetate	EDTA
gas - liquid chromatography	GLC
gas - solid chromatography	GSC
gram	g
gram-molecule	mole
half-wave potential	$E_{\frac{1}{2}}$
infra-red	i.r.
insoluble	insol.
international unit	i.u.
ionic strength	I
kilogram	kg
kilovolt	kV
kilowatt	kW
maxim-um, -a	max.
microgram	μg (not γ)
microlitre	μl
micrometre (not micron)	μm (not μ)
micromole	μmole
milliampere	mA
milli-equivalent	m-equiv.
milligram	mg
millilitre	ml
millimetre	mm
millimolar	mM
millivolt	mV
minute (time)	min.
molar (concentration)	M
molecul-e, -ar	mol.
nanogram	ng
nanometre (not millimicron)	nm (not mμ)
nicotinamide-adenine dinucleotide	NAD (not DPN)
nicotinamide-adenine dinucleotide phosphate	NADP (not TPN)
normal (concentration)	N
nuclear magnetic resonance	NMR
optical rotation	α
parts per million	p.p.m.
per cent.	%
per cent. (vol. in vol.)	% (v/v)
per cent. (wt. in vol.)	% (w/v)
per cent. (wt. in wt.)	% (w/w)
poly(tetrafluoroethylene)	PTFE
potential difference	p.d.
precipitate (as a noun)	ppt.
precipitated	pptd.
precipitating	pptg.
precipitation	pptn.
refractive index	n_λ^t
relative band speed	R_F
revolutions per minute	r.p.m.
ribonucleic acid	RNA
saponification value	sap. val.
saturated calomel electrode	S.C.E.
second (time)	sec.
soluble	sol.
solution	soln.
specific rotation	$[\alpha]_\lambda^t$
square centimetre	sq. cm
standard temp. and pressure	s.t.p.
thin-layer chromatography	TLC
ultra-violet	u.v.
unit of pressure (mm Hg)	torr
volt	V
watt	W
weight	wt.

In addition, the following symbols may be used in conjunction with numerical values or in mathematical expressions—

greater than	$>$	less than	$<$
is proportional to	$\propto$	of the order of, approximately	$\simeq$

Abbreviations of journal titles used in the abstracts are, in general, those of the 'World List of Scientific Periodicals' (4th edn, 1964, Butterworths, London), but all diacritical marks are omitted, and the German ä, ö and ü and the Scandinavian ø (or ö) are transliterated as ae, oe, ue and oe, respectively.

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The chemical nomenclature used in the abstracts is that recommended by The Chemical Society ('Handbook for Chemical Society Authors,' The Chemical Society, London, 1961), and may differ from that used in the original articles.

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